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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/102,939	06/23/1998	MARTIN BICHSEL	P/1336-101	2391

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EXAMINER

OPSASNICK, MICHAEL N

ART UNIT PAPER NUMBER

2655

DATE MAILED: 03/26/2003

22

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/102,939

Applicant(s)

BISCHEL

Examiner

Michael N. Opsasnick

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-22, 27, 29-55 and 60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-22, 27, 29-55 and 60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-19,27,29-53<sup>60</sup> are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenyon et al (4450531) in view of Cooper (5790671).

As per claims 4,16,30,60, Kenyon et al (4450531) teaches a method for compression of an electric audio signal (abstract) wherein:

the amplitude of said audio signal [or of a derived digital or analog signal] is normalized to a predetermined range D (as normalized reference signal -- abstract, col. 4 lines 36-52);

said audio signal is mapped using a non-linear function onto a second determined range of values W in order to obtain an emphasis of sensitive value ranges (as referenced signal is zeroed and filled into a length R -- Fig. 1)

the result is stored in electronic memory form (as stored reference elements -- col. 4 lines 53-59).

Kenyon et al (4450531) does not explicitly teach periodically recording samples of ambient noise using a sounds transducer, however, Cooper (5790671) teaches periodically

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recording the sampled ambient noise levels and manipulation thereof (col. 1 line 47 – col. 2 line 15). Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Kenyon et al (4450531) with recording ambient noise levels because it would allow for adjusting the audio signal so that areas of high ambient noise can be suppressed and therefore increase the intelligibility of the audio signal (cooper, col. 1 lines 33-42).

As per claim 2, Kenyon et al (4450531) teaches a nonlinear function to emphasize a range of values (col. 5 lines 3063).

As per claims 3,31, and 32 Kenyon et al (4450531) teaches binary 3- 16 bits (as Fourier transform -- col. 5 lines 55-60 -- it is notoriously well known to perform a fourier transform with a  $2^n$  number of bits for more efficient processing)

As per claims 4,33, and 34, Kenyon et al (4450531) teaches band pass filtering with band signal attenuation (fig. 1)

As per claims 4,5, 35-37, Kenyon et al (4450531) teaches banded signals ranging from 4- 10 bands(Fig. 6)

As per claim 6, Kenyon et al (4450531) teaches a method for broadcast signals, which include audio (10 hz – 20khz), col. 1 lines 5-13)

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As per claims 7,38, Kenyon et al (4450531) teaches band pass filtering, rectifying, and subtraction with Q matched filters(Fig. 5)

As per claims 8-17,39-53 Kenyon et al (4450531) teaches amplitude control, convolution calculations (and coefficients), division stages, and rms energy value calculations (col. 6 line 25 – col. 8 line 20).

As per claims 18,19,27,29, Kenyon et al (4450531) teaches a data carrier as television broadcast (col. 1 lines 7-12), and processor performing memory calculations and decision logic (Fig. 2; esp. subblocks 64 and 66).

3. Claims 20,21, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kenyon et al (4450531) in view of Cooper (5790671) in further view of Uehara (5754798).

As per claims 20,21, and 54, Kenyon et al (4450531) in view of Cooper (5790671) does not explicitly teach a power save mode when processing is not needed, however, Uehara (5754798) teaches a power save mode in which SMRAM states are compared to determine a power save mode (col. 21, line 60 - col. 22 line 4). Therefore, it would have been obvious to one of ordinary skill in the art of portable transmission devices to modify the teachings of Kenyon et al (4450531) in view of Cooper (5790671) with a power saving mode because it would

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advantageously save the power supply energy and extend the operating time of the device (Uehara (5754798), Fig. 1b, col. 1 lines 10-14).

4. Claims 22 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenyon et al (4450531) in view of Cooper (5790671) in further view of Hoffberg et al (5901246).

As per claims 22 and 55, Kenyon et al (4450531) in view of Cooper (5790671) does not explicitly teach the exact structure/device to perform the calculations; however, Hoffberg et al (5901246) teaches a local processor located in a wristwatch (col. 80, lines 17-20), in which the device is used to broadcast information (col. 80, lines 17-20). Therefore, it would have been obvious to one of ordinary skill in the art of broadcasting signals to adapt the technique of Kenyon et al (4450531) in view of Cooper (5790671) into a wristwatch device because it would allow for the concealment of the device (Hoffberg et al (5901246), col. 80 line 20).

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***Conclusion***

**5. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

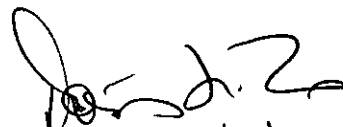
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089, who is available Tuesday-Thursday, 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached at (703)305-4827. The facsimile phone number for this group is (703)872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (703) 305-4750, the 2600 Customer Service telephone number is (703) 306-0377.

mno  
3/9/03

  
DORIS H. TO 3/21/03  
SUPERVISORY PATENT EXAMINER  
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